WHAT IS CLAIMED IS:

- A substantially pure or recombinant 31/2C2 protein or 1. conservatively modified variants thereof,/said protein: 5
 - is expressed on activated T ce/ls; or
 - specifically binds to antibodies generated against SEO ID NO: 2 or 4.
- A protein or peptide of Claim 1, selected from the 10 group consisting of:
 - a natural protein from /a warm blooded animal selected from the group of birds and mammals, including a rodent or primate;

a protein or peptide/: b)

- comprising at /least one polypeptide segment df at least /14 amino acids of SEQ ID NO: 2;
- domprising at least one polypeptide segment ii) [of) at least 14 amino acids of SEQ ID NO: 4;

iii) /which is not glycosylated;

- iv) / which is in a buffered solution;
- which is attached to a solid substrate;
- vi) which exhibits a plurality of epitopes from SEQ ID NO: 2 or 4;
- vii) which is detectably labeled;
- viii) which is a synthetic polypeptide;
- ix) which is conjugated to a chemical moiety;
- which is a 5-fold or less substitution from a \mathbf{x}) natural sequence; or
- which is a deletion or insertion variant xi) from a natural sequence.
- A protein or peptide of Claim 1, comprising a sequence 3. from the extracellular or the intracellular portion of a 35 312C2.

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- 4. A fusion protein comprising a peptide of Claim 1.
- 5. A sterile composition comprising the protein of Claim
 1, and a pharmaceutically acceptable carrier.

6. An antibody which specifically binds a protein or peptide of Claim 1.

7. An antibody of Claim 6, wherein:

a) said 312C2 is a mammalian protein, including a mouse or human;

- b) said antibody is raised against a purified peptide sequence of SEQ ID NO: 2 or 4;
- c) said antibody is a monoclona/ antibody;
- 15 d) said antibody is detectably labeled;
 - e) said antibody is attached/to a solid substrate;
 - f) said antibody is in a sterile composition; or
 - g) said antibody is in a buffered composition.
- 8. A method of purifying a 312C2 protein or peptide from other materials in a mixture comprising contacting said mixture to an antibody of Claim 6, and separating bound 312C2 from other materials.
- 9. An isolated or recombinant nucleic acid capable of encoding a protein or peptide of Claim 1.
 - 10. A nucleic acid ϕ f Claim 9, wherein said nucleic acid:
 - a) encodes a sequence of SEQ ID NO: 2 or 4;
 - b) comprises /a sequence of SEQ ID NO: 1 or 3; or
 - c) encodes a sequence from an extracellular domain of a natural 312C2;
 - d) encodes a sequence from an intracellular domain of a natural 312C2;
- e) attached to a solid substrate;
 - f) is detectable labeled; or
 - g) is in a sterile composition.



- An expression or repl#c#ting vector of Claim 9.
- A kit comprising 12.

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a substantially pure 312C2 or fragment of Claim 1;

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- an antibody or receptor which specifically binds a b)
- a nucle∮c acid encoding a 312C2 or peptide.
- 13. A method for detecting in a sample the presence of a 10 312C2 nucleic acid, protein, or antibody, comprising testing said sample with a kit of Claim 12.
- A method of modulating the physiology of a cell comprising contacting said cell with: 15
 - a substantially pure 3/12C2 or fragment of Claim 1; a)
 - an antibody or binding partner which specifically b) binds a 312C2; or
 - a nucleic acid encoding a 312C2 or peptide.

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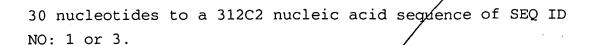
- The method of Claim 14, wherein said cell is a T cell 15. and said modulating of physiology is:
 - apopt sis of said T cell; or
 - activation of/said T cell

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- A method of Claim 14, wherein said cell is in a tissue 16. and/or in an organism.
- A method of expressing a 312C2 comprising expressing a 30 nucleic acid of Claim 9.
 - A cell, ti\$sue, organ, or organism comprising a 18. nucleic acid of/Claim 9.
- A recombinant nucleic acid comprising sequence at 35 least about 70% identity over a stretch of at least about

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- 20. A nucleic acid of Claim 19, further encoding a polypeptide comprising at least about 60% identity over a stretch of at least about 20 amino acids to a 312C2 sequence of SEQ ID NO: 2 or 4.
- 21. A method of treating a host mammal having an abnormal immune response by administering to said mammal an effective dose of:
 - a) an antibody or binding partner which binds specifically to a 312C2;
 - b) a substantially pure 312C2 protein or peptide thereof; or
 - c) a nuclei ϕ acid encoding a 312C2 peptide.
 - 22. The method of Claim 21, wherein said abnormal immune response is characterized by:
 - a) a T-cell immune deficiency;
 - b) chronic inflammation; or
 - c) tis ue rejection.

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